



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,178	11/07/2001	Masakazu Nishikawa	Q66603	4955

7590 04/20/2005
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3202

EXAMINER

RODRIGUEZ, GLENDA P

ART UNIT PAPER NUMBER

2651

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,178

Applicant(s)

NISHIKAWA, MASAKAZU

Examiner

Glenda P. Rodriguez

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 10, 12, 14 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Chi et al. (US Patent No. 5, 121, 258).

Regarding Claim 1, Chi et al. teach a method of magnetic transfer for performing magnetic transfer by bringing a master carrier bearing information signals and a slave medium into close contact with each other then applying a transfer magnetic field thereto, wherein the slave medium is conveyed in a manner that a recording surface of the slave medium faces vertically toward the master carrier (Col. 2, L. 46-52 and Fig. 2, Elements 47, 51 and 52), being held in a manner that an information-bearing surface thereof is held vertically, then bringing the information-bearing surface of said master carrier and the recording surface of the slave medium into close contact with each other (See Fig. 2, and Col. 5, L. 22-32 and Col. 6, L. 62-66).

Regarding Claim 2, Chi et al. teach a method for performing magnetic transfer by bringing a master carrier bearing information for transfer and a slave medium into close contact with each other then applying a transfer magnetic field thereto (Col. 2, L. 46-52 and Fig. 2, Elements 47, 51 and 52), wherein the slave medium is held by a slave holder (Col. 4, L. 25-30. The slave medium is held between both master medium, therefore it holds the slave into close contact with the master, functioning as a slave holder.)

Regarding Claim 10, Chi et al. teach all the limitations of Claim 1. Chi et al. also teach a slave medium being held at a close contact with each other then applying a transfer magnetic field thereto by a slave holder (Col. 4, L. 25-30. The slave medium is held between both master medium, therefore it holds the slave into close contact with the master, functioning as a slave holder.)

Regarding Claim 3, Chi et al. teach all the limitations of Claim 2. Chi et al. also teach wherein the slave medium is positioned and held at the slave holder, and an alignment of the master carrier with the slave medium is performed via the slave holder (See Fig. 2 and Col. 5, L. 22-32, Element 24, holds the slave medium and both master carriers (Elements 50 and 48)).

Regarding Claim 4, Chi et al. teach a magnetic transfer device that performs magnetic transfer by bringing a master carrier bearing information signals and a slave medium into close contact with each other then applying a transfer magnetic field thereto (See Fig. 2, Col. 2, L. 46-52), said magnetic transfer device comprising:

Contacting means that holds the master carrier in a manner so that an information-bearing surface of the master carrier faces vertically and that brings the information-bearing surface into contact with the slave medium (Col. 5, L. 22-32 and Col. 6, L. 62-66);

Conveying means that conveys the slave medium in a manner so that a recording surface of the slave medium faces vertically toward said contacting means (See Fig. 2, Elements 47 and 51 are master medium and medium 52 is the slave (Col. 5, L. 22 to Col. 6, L. 10).);

And magnetic field generating means that applies a magnetic field to the slave medium and the master carrier collectively held at the contacting means (Col. 4, L. 55-60).

Regarding Claim 5, Chi et al. teach a magnetic transfer device that performs magnetic transfer by bringing a master carrier bearing information for transfer and a slave medium into close contact with each other then applying a transfer magnetic field thereto, said magnetic transfer device comprising:

A close contact base that positions and holds said master carrier (Col. 5, Lines 22-32 and Col. 6, L. 62-66);

A slave holder that positions and holds said slave medium and conveys the slave medium to a position for close contact (Col. 4, L. 25-30. See Fig. 2 and Col. 5, L. 22-32, Element 24, Chi et al. teach that Element 24 holds the slave medium in close contact with the master carrier.);

Pressurizing means that brings the slave medium held by the slave holder and the master carrier into close contact with each other (See Fig. 2 and Col. 5, Lines 22-32, Element 24, holds the slave medium and both master carriers (Elements 50 and 48));

A positioning mechanism that aligns the close contact base with the slave holder (Col. 4, L. 17-30. Chi et al. teaches that when the actuator is given power, it drives Element 30 to a coupling by going in the direction specified by Element 34, thus placing the master and slave into close contact.);

And magnetic field applying means that applies a transfer magnetic field to the slave medium and the master carrier that are closely contacted with each other (Col. 4, L. 55-60).

Regarding Claim 17, Chi et al. teach all the limitations of Claim 1. Chi et al. further teach wherein the recording surface of the slave medium and the information-bearing surface of the master carrier are oriented substantially perpendicular to ground (See Fig. 2, Elements 47 and 51 are master medium and medium 52 is the slave (Col. 5, L. 22 to Col. 6, L. 10).).

Regarding Claims 12 and 14, Chi et al. teach all the limitations of Claims 1 and 2, respectively. Chi et al. further teach generating a transfer magnetic field at at least one side of the slave medium wherein the transfer magnetic field is applied in a direction parallel to a tracking direction of the slave medium (Col. 4, L. 55-60).

Regarding Claim 20, Chi et al. teach all the limitations of Claim 1. Chi et al. Further teach wherein the master carrier and the slave medium rotate about a rotation axis disposed horizontally (See Col. 2, Lines 46-52 and Fig. 2, Elements 47, 51 and 52).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chi et al. (US Patent No. 5, 121, 258) in view of Bonyhard (US Patent No. 6, 181, 492). Chi et al. teach all the limitations of Claims 1 and 4, respectively. Chi et al. fail to teach wherein information signals

Art Unit: 2651

that are magnetically transferred to the magnetic recording medium by the method are composed of servo signals. However, this feature is well known in the art as disclosed by Bonyhard, wherein it teaches that information signals that are magnetically transferred to the magnetic recording medium by the method are composed of servo signals (Pat. No. 6, 181, 492; See Abstract). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Chi et al.'s invention in order for the medium to magnetically transfer servo signals in order transfer servo-patterns from slave to master disc without the use of a servo writer.

5. Claims 6, 7, 11, 13, 15, 16, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chi et al. (US Patent No. 5, 121, 258) in view of Ishida et al. (US Patent No. 6, 347, 016).

Regarding Claims 6, 11 and 13, Chi et al. teach all the limitations of Claims 5, 10 and 13, respectively. Chi et al. fail to teach wherein either a plurality of positioning pins or a plurality of positioning holes are provided on the close contact base. However, this feature is well known in the art as disclosed by Ishida et al., wherein it teaches either a plurality of positioning pins or a plurality of positioning holes are provided on the close contact base (Pat. No. 6, 347, 016; See Fig. 20); either a plurality of positioning holes or a plurality of positioning pins are provided on said slave holder (Pat. No. 6, 347, 016; See Fig. 21 and Col. 28, L. 17-26. Ishida et al. teach master (Element 201) holding a slave disk (Element 202) on close contact being held together by a plurality of bolts inserted in the holes (Elements 209).); and the positioning mechanism performs alignment by engaging the positioning pins with the positioning holes (Pat. No. 6, 347, 016; See Fig. 20). It would have been obvious to a person of ordinary skill in the art, at the time

Art Unit: 2651

the invention was made, to modify Chi et al.'s invention in order for the medium to ensure a uniform contact between the master carrier and the slave disk.

Regarding Claim 7, Chi et al. and Ishida et al. teach all the limitations of Claim 6. Ishida et al. further teach wherein the diameters of the positioning holes are designed to be greater than those of the positioning pins (Pat. No. 6, 347, 016; See Fig. 20, The diameter of the pins (Element 209) is greater than the slave and master medium.), and the positioning pins being engaged to perform alignment (Pat. No. 6, 347, 016; See Col. 28, L. 24-26. Ishida et al. teach a slave being held and aligned to a master for ensuring magnetic transfer.). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Chi et al.'s invention in order for the medium to ensure a uniform contact between the master carrier and the slave disk.

Regarding Claim 15, Chi et al. and Ishida et al. teach all the limitations of Claim 6. Ishida et al. further teach wherein each of the positioning pins has a smooth surface to slide into a respective positioning hole (Pat. No. 6, 347, 016; Fig. 21, Ishida et al. teaches that the master and the slave being placed together by bolts in order to slide in the positioning holes.). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Chi et al.'s invention in order for the medium to ensure a uniform contact between the master carrier and the slave disk.

Regarding Claim 16, Chi et al. and Ishida et al. teach all the limitations of Claim 6. Chi et al. further teach generating a transfer magnetic field at at least one side of the slave medium wherein the transfer magnetic field is applied in a direction parallel to a tracking direction of the slave medium (Col. 4, L. 55-60).

Regarding Claims 20 and 21, Chi et al. teach all the limitations of Claim 12 and 14, respectively. Chi et al. does not explicitly disclose wherein the transfer magnetic field is substantially parallel to a planar surface of the slave medium. However, this feature is well known as disclosed by Ishida et al., wherein it features a magnetic transfer operation occurring parallel to the slave medium (Pat. 6, 347, 016; Fig. 6(a)). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Chi et al.'s invention in order for the medium to ensure a uniform contact between the master carrier and the slave disk.

Response to Arguments

Examiner maintains the same arguments as disclosed in the Advisory Action form (PTO – 303) mailed on 10/04/2004. Examiner rejected newly filed Claims 20-22.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenda P. Rodriguez whose telephone number is (571) 272-7561. The examiner can normally be reached on Monday thru Thursday: 7:00-5:00; alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2651

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



gpr

April 13, 2005.



DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600